

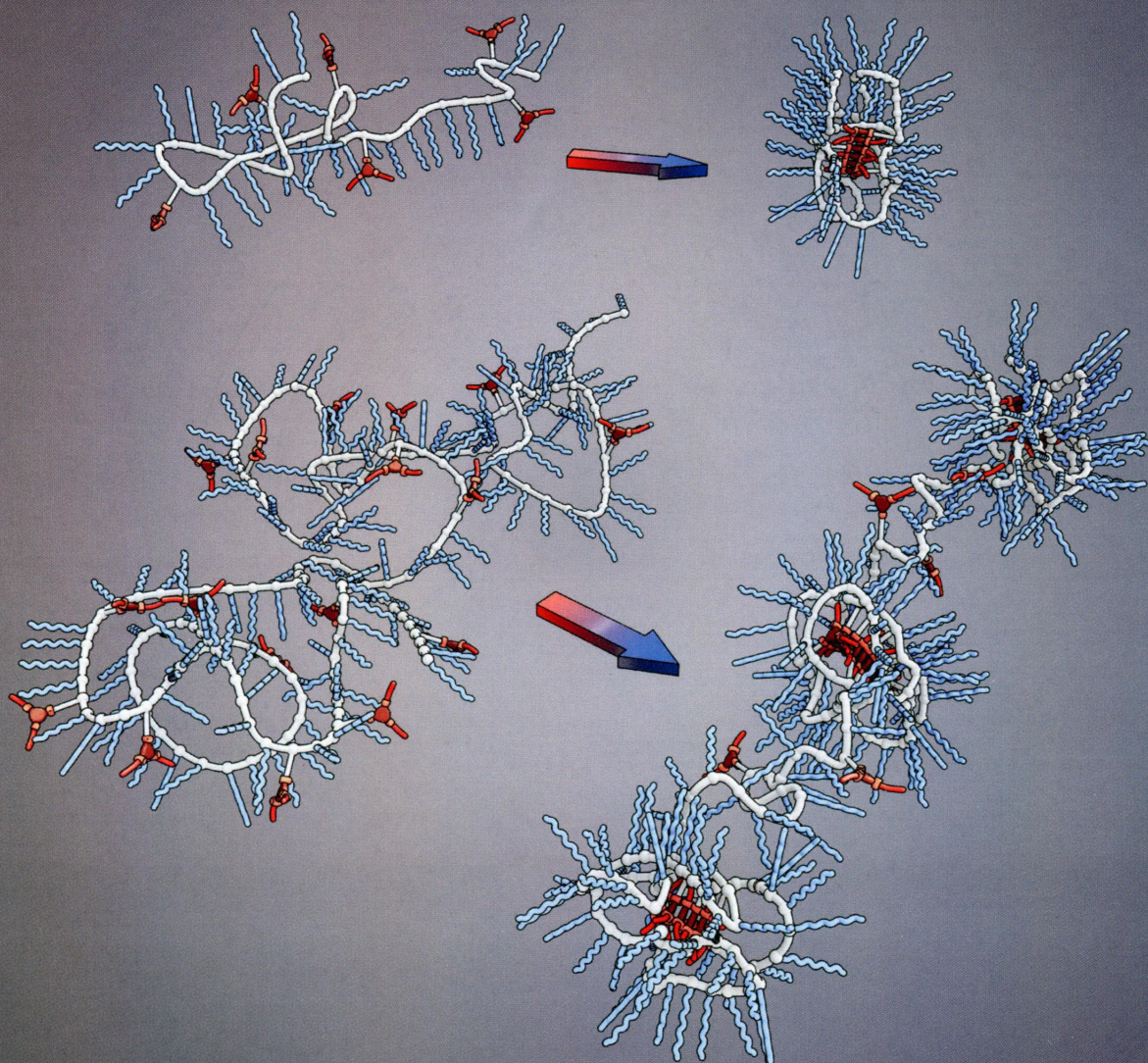
FM
M13/r

June 24, 2014
Volume 47
Number 12

Macromolecules

pubs.acs.org/Macromolecules

Folding of Amphiphilic Copolymers with Supramolecular Motifs



ACS Publications
Most Trusted. Most Cited. Most Read.

www.acs.org

ON THE COVER: Circular dichroism spectroscopy reveals that the folding of amphiphilic copolymers with pendant BTA-based supramolecular motifs is chain length independent. This is rationalized by an increase in the aspect ratio of the formed single chain nanoparticles as demonstrated by small-angle neutron scattering experiments. *Macromolecules* 2014, 47, 2947–2954.

Articles

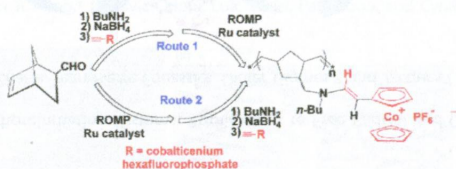
3767



dx.doi.org/10.1021/ma5007864

ROMP Synthesis of Cobalticinium–Enamine Polyelectrolytes

Yanlan Wang, Amalia Rapakousiou, and Didier Astruc*



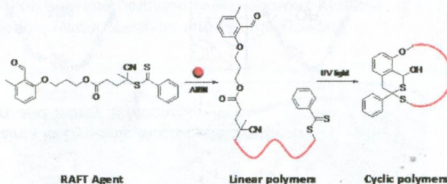
3775



dx.doi.org/10.1021/ma500799w

Powerful Ring-Closure Method for Preparing Varied Cyclic Polymers

Qingquan Tang, Ying Wu, Peng Sun, Yongming Chen, and Ke Zhang*



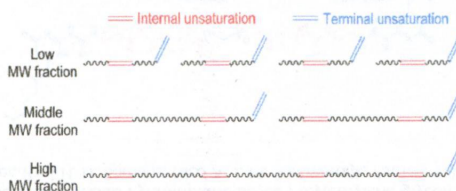
3782



dx.doi.org/10.1021/ma500989p

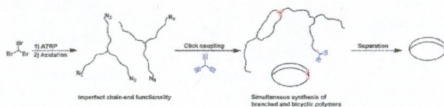
Terminal and Internal Unsaturations in Poly(ethylene-co-1-octene)

Yiyong He,* Xiaohua Qiu,* Jerzy Klosin,* Rongjuan Cong, Gordon R. Roof, and David Redwine

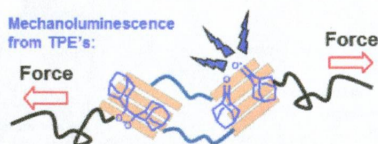


Preparation and Analysis of Bicyclic Polystyrene

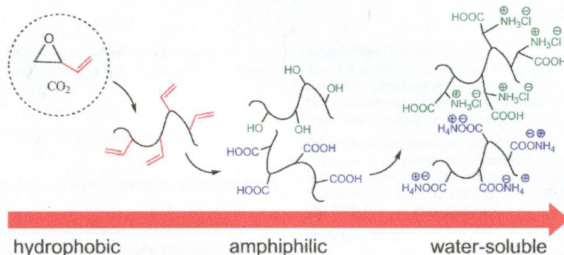
Jonghwa Jeong, Kihyun Kim, Rooda Lee, Sookyeong Lee, Hyewon Kim, Haeji Jung, Mohammad Abdul Kadir, Yujin Jang, Heung Bae Jeon, Krzysztof Matyjaszewski, Taihyun Chang,* and Hyun-jong Paik*

**Dioxetanes as Mechanoluminescent Probes in Thermoplastic Elastomers**

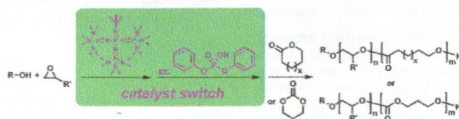
Yulan Chen and Rint P. Sijbesma*

**Postpolymerization Functionalization of Copolymers Produced from Carbon Dioxide and 2-Vinylloxirane: Amphiphilic/Water-Soluble CO₂-Based Polycarbonates**

Donald J. Darenbourg* and Fu-Te Tsai

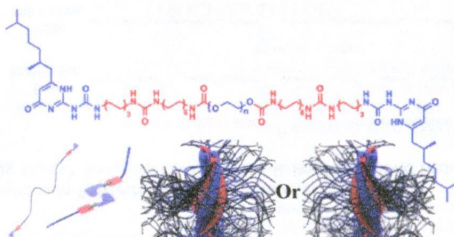
**A "Catalyst Switch" Strategy for the Sequential Metal-Free Polymerization of Epoxides and Cyclic Esters/Carbonate**

Junpeng Zhao, David Pahovnik, Yves Gnanou, and Nikos Hadjichristidis*



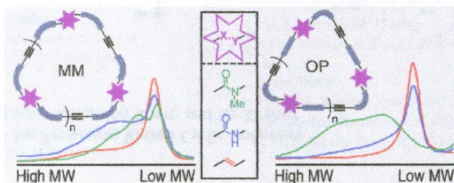
Self-Assembly of Chiral Supramolecular Ureido-Pyrimidinone-Based Poly(ethylene glycol) Polymers via Multiple Pathways

Mellany Ramaekers, Isja de Feijter, Paul H. H. Bomans, Nico A. J. M. Sommerdijk, Patricia Y. W. Dankers,* and E. W. Meijer*



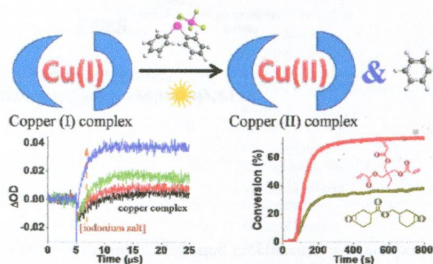
Relaxing Conformational Constraints in Dynamic Macrocycle Synthesis

Scott W. Sisco, Brandon M. Larson, and Jeffrey S. Moore*



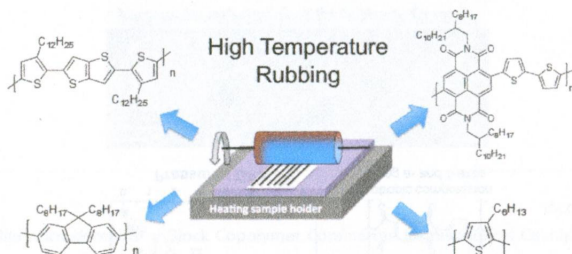
Copper Complexes in Radical Photoinitiating Systems: Applications to Free Radical and Cationic Polymerization upon Visible LEDs

Pu Xiao,* Frederic Dumur, Jing Zhang, Jean Pierre Fouassier, Didier Gigmes,* and Jacques Lalevée*

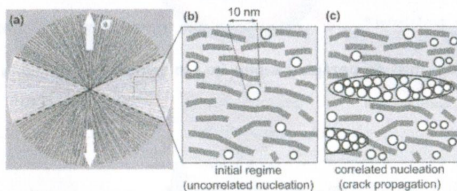


High-Temperature Rubbing: A Versatile Method to Align π -Conjugated Polymers without Alignment Substrate

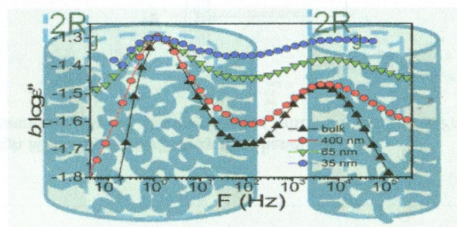
Laure Biniek, Stéphanie Pouget, David Djurado, Eric Gonthier, Kim Tremel, Navaphun Kayunkid, Elena Zaborova, Nicolas Crespo-Monteiro, Olivier Boyron, Nicolas Leclerc, Sabine Ludwigs, and Martin Brinkmann*

**Physical Mechanisms of Fatigue in Neat Polyamide 6,6**

Elodie Mourglia-Seignobos, Didier R. Long,* Ludovic Odoni, Loïc Vanel, Paul Sotta, and Cyrille Rochas

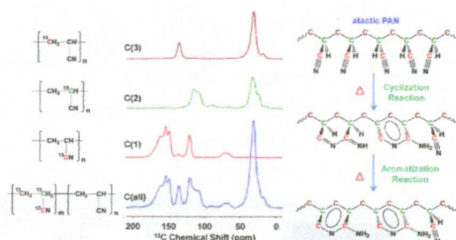
**Dynamics of Unentangled *cis*-1,4-Polyisoprene Confined to Nanoporous Alumina**

Stelios Alexandris, Georgios Sakellariou, Martin Steinhart, and George Floudas*



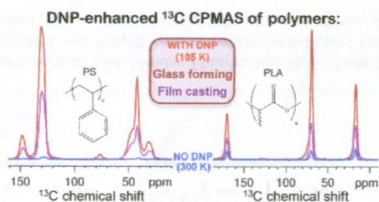
Structural Identification of Polyacrylonitrile during Thermal Treatment by Selective ^{13}C Labeling and Solid-State ^{13}C NMR Spectroscopy

Yusong Wang, Lianhua Xu, Mozhen Wang,* Wenmin Pang, and Xuewu Ge*



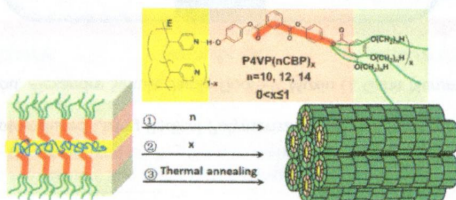
Optimizing Sample Preparation Methods for Dynamic Nuclear Polarization Solid-state NMR of Synthetic Polymers

Dao Le, Gilles Casano, Trang N. T. Phan, Fabio Ziarelli, Olivier Ouari, Fabien Aussenac, Pierre Thureau, Giulia Mollica, Didier Gigmes, Paul Tordo, and Stéphane Viel*



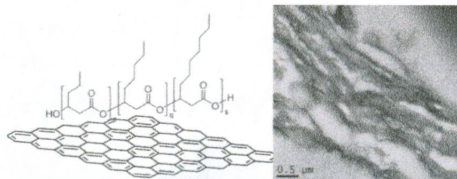
Hydrogen-Bonded Polymers with Bent-Shaped Side Chains and Poly(4-vinylpyridine) Backbone: Phase Behavior and Thin Film Morphologies

Xiaoshan Liu, Xiaofang Chen,* Jingkui Wang, Gang Chen,* and Hailiang Zhang*



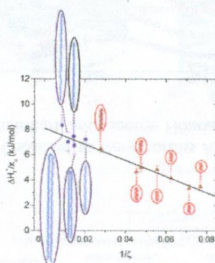
Poly(hydroxyalkanoate) Elastomers and Their Graphene Nanocomposites

John S. F. Barrett, Ahmed A. Abdala,* and Friedrich Srienc*



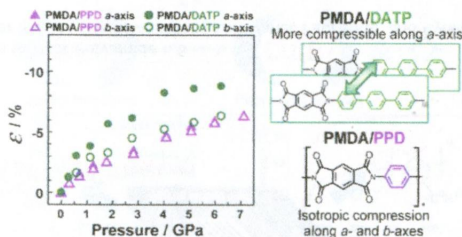
Quantifying Crystallinity in High Molar Mass Poly(3-hexylthiophene)

Chad R. Snyder,* Ryan C. Nieuwendaal, Dean M. DeLongchamp, Christine K. Luscombe, Prakash Sista, and Shane D. Boyd



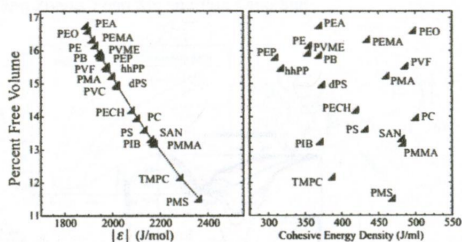
Pressure-Induced Changes in Crystalline Structures of Polyimides Analyzed by Wide-Angle X-ray Diffraction at High Pressures

Kazuhiro Takizawa, Hiroshi Fukudome, Yukiko Kozaki, and Shinji Ando*



Free Volume, Cohesive Energy Density, and Internal Pressure as Predictors of Polymer Miscibility

Ronald P. White and Jane E. G. Lipson*

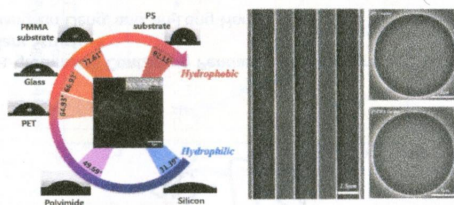


3969 5

dx.doi.org/10.1021/ma500716f

Substrate-Independent Lamellar Orientation in High-Molecular-Weight Polystyrene-*b*-poly(methyl methacrylate) Films: Neutral Solvent Vapor and Thermal Annealing Effect

Eunyoung Choi, Sungmin Park, Hyunju Ahn, Moongyu Lee, Joon Bang, Byeongdu Lee, and Du Yeol Ryu*

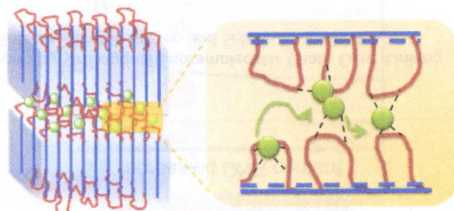


3978 5

dx.doi.org/10.1021/ma500734q

How Does Nanoscale Crystalline Structure Affect Ion Transport in Solid Polymer Electrolytes?

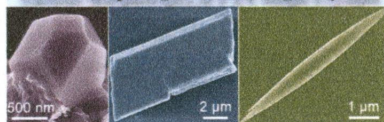
Shan Cheng, Derrick M. Smith, and Christopher Y. Li*



Characterization and Structural Analysis of Solution-Grown Polyacrylonitrile-co-Methacrylic Acid (PAN-co-MAA) Single Crystals

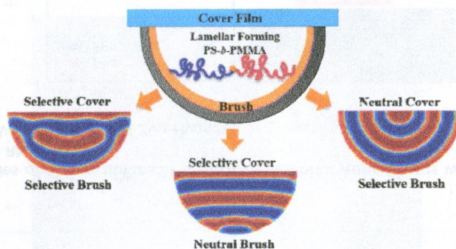
Yiying Zhang and Marilyn L. Minus*

Various Morphologies of PAN Single Crystals



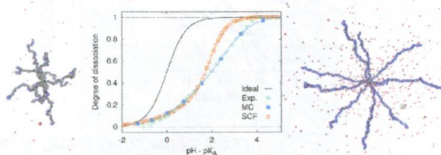
Arrangement of Lamellar Microdomains of Block Copolymer Confined in Hemispherical Cavities Having Two Controlled Interfaces

Dagam Lee, Myung-Hyun Kim, Dusik Bae, Gumhye Jeon, Mooseong Kim, Jongheon Kwak, So Jung Park, Jaepu U. Kim,* and Jin Kon Kim*



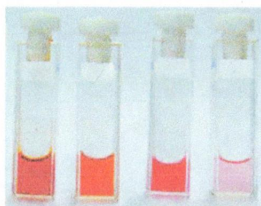
Modeling of Ionization and Conformations of Starlike Weak Polyelectrolytes

Filip Uhlík,* Peter Kočován, Zuzana Limpouchová, Karel Procházka, Oleg V. Borisov, and Frans A. M. Leermakers



Conjugated Polyelectrolyte (CPE) Poly[3-[6-(*N*-methylimidazolium)hexyl]-2,5-thiophene] Complexed with DNA: Relation between Colloidal Level Solution Structure and Chromic Effects

Matti Knaapila,* Telma Costa, Vasil M. Garamus, Mario Kraft, Markus Drechsler, Ullrich Scherf, and Hugh D. Burrows



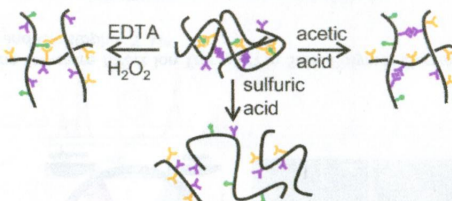
increasing DNA content

4028

dx.doi.org/10.1021/ma5008573

Multiresponsive Polymer Hydrogels by Orthogonal Supramolecular Chain Cross-Linking

Sebastian Hackelbusch, Torsten Rossow, Hendrik Becker, and Sebastian Seiffert*

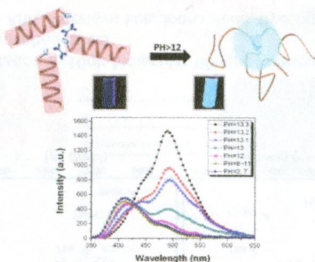


4037 5

dx.doi.org/10.1021/ma500886v

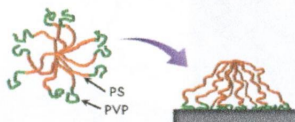
Water-Soluble Poly(γ -propargyl-L-glutamate) Containing Pendant Sulfonate Ions and Terminal Fluorophore: Aggregation-Enhanced Emission and Secondary Structure

Ke-Ying Shih, Tai-Shen Hsiao, Shiang-Lin Deng, and Jin-Long Hong*



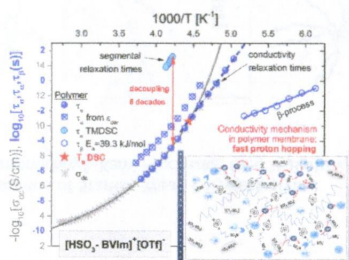
Kinetics of Preferential Adsorption of Amphiphilic Star Block Copolymers that Tether by Their Corona Blocks at the Solid/Fluid Interface

Jose Alonzo, Juan Pablo Hinestrosa, Jimmy W. Mays, and S. Michael Kilbey II*



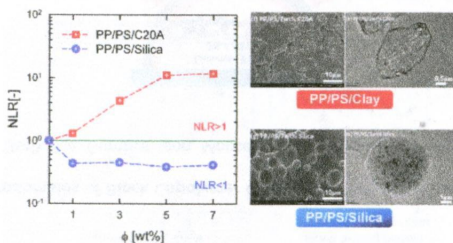
Conductivity Mechanism in Polymerized Imidazolium-Based Protic Ionic Liquid [HSO₃-BVI_m][OTf]: Dielectric Relaxation Studies

Z. Wojnarowska,* J. Knapik, M. Diaz, A. Ortiz, I. Ortiz, and M. Paluch



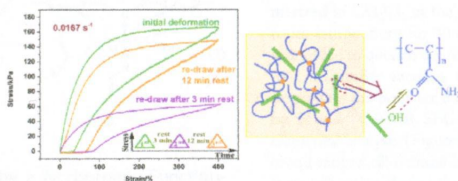
Characterization of Morphologies of Compatibilized Polypropylene/Polystyrene Blends with Nanoparticles via Nonlinear Rheological Properties from FT-Rheology

Reza Salehiyan, Youngjae Yoo, Woo Jin Choi, and Kyu Hyun*



Cellulose Nanocrystals Mechanical Reinforcement in Composite Hydrogels with Multiple Cross-Links: Correlations between Dissipation Properties and Deformation Mechanisms

Jun Yang,^{*} Chun-Rui Han, Xue-Ming Zhang, Feng Xu, and Run-Cang Sun

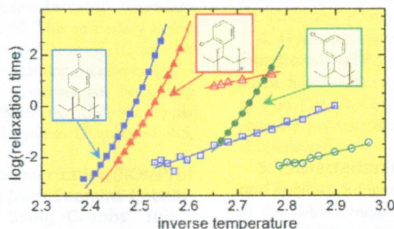


4087

dx.doi.org/10.1021/ma5008495

Effect of Regioisomerism on the Local Dynamics of Polychlorostyrene

R. Casalini^{*} and C. M. Roland

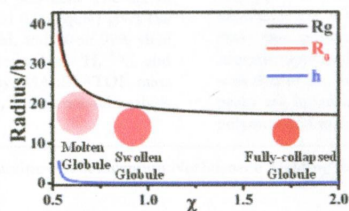


4094

dx.doi.org/10.1021/ma5003968

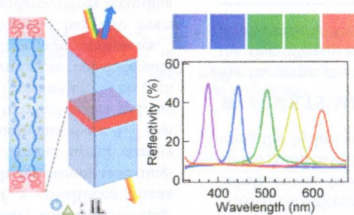
Theory of Polymer Chains in Poor Solvent: Single-Chain Structure, Solution Thermodynamics, and Θ Point

Rui Wang and Zhen-Gang Wang^{*}



Photonic Block Copolymer Films Swollen with an Ionic Liquid

Atsushi Noro,* Yusuke Tomita, Yuya Shinohara, Yoshio Sageshima, Joseph J. Walsh, Yushu Matsushita, and Edwin L. Thomas*

**Grafted Polyrotaxanes: Scaling Theory and Molecular Dynamics Simulations**

Holger Merlitz,* Wei Cui, Chan-Fei Su, Chen-Xu Wu,* and Jens-Uwe Sommer

**Self-Organized Structures of Attractive End-Functionalized Semiflexible Polymer Suspensions**

Jin Suk Myung, Farzaneh Taslimi, Roland G. Winkler,* and Gerhard Gompper*

